

REMARKS

Reconsideration and further examination of the subject patent application is respectfully requested in view of the present Amendment, and the following Remarks. Claims 1-20 are currently pending in the application. Claims 1, 5-8, 13-15 and 18-19 have been rejected under U.S.C. §103(a) as being unpatentable over Gorin, et al, "How May I Help You?", October 1996, AT&T Research ("Gorin") in view of U.S. Pat. Application Publication No. 2002/0035474 to Alpdemir further in view of U.S. Pat. No. 6,640,231 to Andersen et al ("Andersen"). Claims 2, 9 and 16 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Gorin and Alpdemir in view of Andersen further in view of Gavan et al. (U.S. Pat. No. 6,601,048) and further in view of Dezonno (U.S. Pat. No. 6,233,333). Claim 20 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Gorin in view of Alpdemir further in view of Saylor et al. (U.S. Pat. No. 6,792,086) and claims 3, 10, 11 and 17 have been rejected as being unpatentable over Gorin, and Alpdemir in view of Anderson further in view of Saylor. Claim 4 has been rejected as unpatentable over Gorin and Alpdemir in view of Andersen further in view of U.S. Pat. No. 6,349,290 to Horowitz, et al. ("Horowitz"), and claim 12 has been rejected as unpatentable over Gorin and Alpdemir in view of Andersen further in view of Saylor and further in view of U.S. Pat. Pub. No. 2003/0084010 to Bigus, et al. ("Bigus"). Claims 1, 8, 15 and 20 have been amended for clarification. After careful review of the claims and references, applicant believes that the claims are in allowable form and therefore a Notice of Allowance is respectfully requested.

The independent claims 1, 8, and 15 as well as dependent claims 5-7, 12-14, 18, and 19 have been rejected as obvious over Gorin, Alpdemir and Anderson. Claims 1, 8, 15 and 20, claim an AI engine that incorporates the expertise of a live agent using AI to answer a query without requesting additional information from the caller (see, e.g. Figs. 2 and 3 and p. 5, line 22 to p. 6, line 19).

While Gorin uses natural language recognition, it does not teach use of artificial intelligence to determine answers, and only concerns routing which is a pre-agent assignment activity unrelated to the claimed invention. The Office Action asserts that Gorin discloses forming a natural language answer to the query within an AI engine and

incorporates the expertise of a live agent, and enables a natural language conversation at page 2, first column, line 14-59 and p. 2, second column, lines 23, lines 4-10. However, Gorin does not teach the use of artificial intelligence to determine natural language answers to queries. Gorin concerns automatic routing, and uses natural language recognition, prompts, and form filling to determine the call type for call routing but does not use AI incorporating live agent expertise, or attempt to answer users queries. "Such a call router need not solve the user's problem." (Gorin, p. 1, Col. 1, third paragraph). Further, Gorin does not mention use of an artificial intelligence engine. Thus, Gorin does not teach use of artificial intelligence to simulate a natural language conversation. The Office Action, conceding that Gorin does not mention AI, asserts that Gorin's system is functionally an AI engine (p. 17, lines 12-19). However, the only support provided is examples of natural language phrases. This, however, only establishes use of speech recognition in the limited system described which merely tries to recognize a limited number of predetermined service requests for routing purposes. This is not a description of AI engine functionality. Gorin does not mention AI because it does not use AI and does not need it. The Office Action asserts that Gorin provides examples of conversations between machine and human mimicing a live agent providing natural language answer including one involving querying for an area code. This, however, does not demonstrate use of artificial intelligence. These are merely examples of recognizing a menu of predetermined requests for routing using a series of questions to get to the desired result. This does not involve use of AI, use of agent expertise in on AI engine or have any need for second order logic. AI permits the system to answer a query without going thru a menu of questions. As set out in the Office Action AI requires the AI engine to perform actions requiring intelligence such of interference, and creativity not merely asking the caller to provide additional information. Gorin merely proceeds through a set of questions to the user to get to an answer, the AI engine forms an answer, not by asking question but by correlating and selecting the most probable answer. This Gorin does not do. Thus, Gorin does not teach the claimed AI engine or have use for second order AI logic.

In addition, Gorin does not use or have a need to use the expertise of a live agent. Since Gorin merely tries to recognize one of 14 predetermined service requests (p. 3, Col. 1, first paragraph), it does not have use for agent expert artificial intelligence. The call

routing of Gorin is pre-agent activity. The call is first routed by Gorin; then after routing and assignment to a live agent, a live agent, or the live agent simulator of the invention would handle the customer questions. The live agent expertise is not used or needed until after the call has been routed. Thus, Gorin's call routing does not suggest use of AI with live agent expertise. Further, Gorin teaches passing the user to a live agent when live agent capability is needed (Gorin, p.1, col. 7, last line to Col. 2, line 1). Thus, Gorin teaches a simple question series speech recognition system for routing calls prior to agent assignment, not an AI system incorporating live agent expertise for answering queries. Therefore, Gorin does not teach the claimed use of AI, incorporating the expertise of a live agent, or implementing of second order logic. There is no need to implement these AI features in systems which do not use or need AI.

The Office Action concedes that Alpdemir and Gorin do not disclose AI second order logic but asserts that Andersen teaches use of second order logic in Col. 2, lines 17-41; Col. 3, lines 1-20; Col. 10, lines 1-15 and Col. 11, line 65-Col. 12, line 2 and Fig. 1 to create database. However, none of the passages describe or mention an AI engine with second order logic. Further, the system described does not relate to an AI engine simulating an agent answering inquiries and thus does not suggest use in such a system. None of the cited reference teaches or attempts to use agent expertise in AI logic to answer queries because they either use menus (Alpdemir) or are concerned only with routing (a pre-agent activity). Thus, all pending claims are distinguishable over the cited references.

Claims 7 and 8 limit the knowledge universe to only enterprise activities which is also not disclosed by the cited references. Claims 16 and 20 also further limit the knowledge universe to call records for forming a context for processing the call, and to agenda of the organization to provide subjective answers focused on the organization. As described, in the specification (e.g., p. 8, para 4) this limited universe provides unique advantages, and is not disclosed in Gorin which does not describe use of this limited universe in an AI engine or in fact, any implementation of an artificial intelligence engine to form answers to inquiries to agents. Thus, the independent claims 1, 8, 15, and 20 distinguish over Gorin and the other cited references for at least the above reasons, and are therefore believed to be allowable. Further, the dependent claims 2-7, 9-14, and 16-

19 are similarly believed to be allowable at least because they depend from allowable claims 1, 18, and 15.

Claims 2, 9, and 16 have been rejected as obvious over in view of Andersen and further in view of Gavan et al. ("Gavan") and Dezonno. As discussed above, Gorin do not teach use of an artificial intelligence engine to form answers to caller queries, and neither does Gavan. Gavan discloses a system for processing event records and uses an AI engine for pattern recognition in the records for detecting fraud. Thus, while Gavan teaches detection of patterns in event records, it does not teach or suggest use of artificial intelligence to answer queries from callers about the enterprise activities as claimed. Therefore, Gavan does not teach utilizing the call record to enable the AI engine to form a context for forming answers to queries to agents. Thus, none of the references disclose this feature or AI engine to drawing inferences from call records to form answers, as claimed. Further, claim 2 calls for delivery of call records and a second call to the artificial intelligence engine at substantially the same time. Claim 2 has been further rejected as obvious over Alpdemir, Gorin, and Gavan and further in view of Dezonno. The Office Action asserts that Dezonno disclosed identifying a call record to be delivered from one ACD to another ACD and that the call record and call are delivered simultaneously at Col. 7, lines 30-44. However, Dezonno delivers the call to the agent 18C and the records to a terminal display 22C. Thus, they are delivered to two different destinations, not to a single engine or location (i.e., the artificial intelligence engine). While the two different destinations may be located close together this does not teach delivery to the same engine. The two destinations are clearly different. Gavan merely teaches use of multiple items. Thus, neither reference teaches delivery of a call and call records to the same destination i.e. to the same AI engine, as claimed. Thus, claim 2, which is dependent upon allowable claim 1, is believed to be further distinguishable over any combination of the cited references. This feature is also not taught or suggested by Gorin, Alpdemir, Gavan, or Dezonno.

In addition, claims 2, 9, and 16 call for use of call records to form a context for forming answers to the caller queries. Gorin does not disclose an AI engine forming a context for answering queries or for drawing inferences. The Office Action refers to paragraph 0091 which clearly does not describe an AI engine but instead describes traditional data retrieval using the name and location. There is no AI engine described in

Gorin, and no mention of drawing inferences on AI engine. There is no AI engine, no AI function and no AI context described. In fact, the opposite is taught by Alpdemir and Gorin, simply traditional data retrieval and speech recognition. Gavan, concerned with the entirely different issue of looking for fraud patterns in event records, also fails to teach or suggest this feature. This use of artificial intelligence on call records to detect fraud patterns is entirely different from using it to generate context for answers to caller questions about the enterprise activities. Dezonno discloses identifying a call record but does not disclose using the call record to form a context for an AI engine to form answers. Thus, neither Gorin, Alpdemir, Gavan, nor Dezonno disclose the claimed feature of using the call records to draw inferences to form the context in an AI engine for forming answers to the caller queries. Accordingly, claims 2, 9, and 16 are believed to be distinguishable over the combination of Gorin, Alpdemir, Gavan, or Dezonno.

Claims 3, 10-11 and 17 have been rejected as obvious over Gorin, Alpdemir and Andersen further in view of Saylor. Saylor describes using voice codes to store content which is accessible by telephone but fails to disclose use of an artificial intelligence engine to form answers to caller queries or use of the claimed specifically limited knowledge universe or enabling generalizing otherwise indeterminate questions (see e.g., p. 8). Thus, none of the cited references teach these features, and the claims 3-4, 10-11, and 17 are therefore distinguishable over the combination. Claim 17 calls for the AI engine to use information from web page documents to form answers in VXML and incorporating VXML responses into documents delivered to the caller in response to the call. This feature is also not taught by the cited references.


Further claim 4 calls for an AI engine that duplicates prior successful conversation strategies and mimicing a live agent, and claim 11 calls for an AI engine that is not objectively accurate in responding to queries. These features are also believed to not be disclosed in the context of a call processing AI system simulating a natural language conversation as claimed.

As discussed above, all pending claims 1-20 claim features which are not disclosed in any of the cited references. Therefore, claims 1-20 are believed to be allowable over any combination of the cited references.

For the foregoing reasons, applicant submits that the subject application is in condition for allowance and earnestly solicits a Notice of Allowance. Should the

Examiner be of the opinion that a telephone conference would expedite prosecution of the subject application, the Examiner is respectfully requested to call the undersigned at the below-listed number.

Respectfully submitted,
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